

**How To Make**

# **DISPOSABLE SILENCERS**



**A Complete Guide**

# WARNING NOTICE

The construction or possession of many of these devices would be in violation of various Federal, State, and Local laws. Please contact your local B.A.T.F. office for any information you may require, BEFORE attempting the construction of any of these devices. Severe penalties are prescribed for violators of these laws!

The publisher assumes no responsibility for the use or misuse of any information contained in this book.

These articles are presented for academic study only!





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# INTRODUCTION

One of the problems man has had to contend with throughout the history of firearms, has been noise. Prior to discharging an unsilenced weapon, some shooters have the tendency to flinch in anticipation of the muzzle blast, thus affecting accuracy. After discharge, a bigger problem is the period of temporary deafness the shooter experiences.

Gun noise also attracts attention, and for individuals or small groups of combatants, facing a superior force, this could mean detection and disaster.

Gun noise can be categorized into three major categories.

### **1. MECHANICAL NOISE**

The noise the weapon's mechanism makes in order to fire a round.

This noise would be least noticeable in a bolt action weapon, due to its minimum of moving parts, and most noticeable in an open bolt submachine gun type weapon or semi-auto weapon. In real practice, however, all three weapon systems have been effectively silenced, examples being the MAC 10/11 submachine guns and the RUGER MK I and HIGH STANDARD .22 caliber semi-auto pistols.

### **2. SONIC CRACK**

The noise a bullet makes when traveling over 1100 fps (feet per second).

When a bullet travels at super sonic velocities there will be a sonic crack much like a jet's sonic boom. Little can be done to lower the velocity of bullets which travel at a much higher level than 1100 fps. Extensive modifications to the weapon's barrel system would be required. One modification could be porting the barrel to release propellant gas before the bullet exits the barrel to reduce velocity. This is undesirable in certain calibers as they require a high velocity in order to be effective. Case in point is the .223 Remington (5.56mm).

Other calibers which are just slightly above the 1100 fps level, as is the case with the 9mm luger, can



be properly lowered to subsonic levels by handloading with lighter powder charges or using heavier bullets. If using .22 long rifle caliber ammunition, try to avoid hyper velocity rounds as some exceed super sonic levels.

### 3. MUZZLE BLAST

The noise generated by the escape of the hot propellant gas.

Of all the noises associated with firearms, the most significant is the muzzle blast, which is caused by escaping propellant gas upon bullet exit from the barrel.

The objective of most silencer designs is to reduce the muzzle blast by preventing the sudden release of the hot propellant gas long enough to reduce its pressure and lower its temperature.

In constructing any silencer, there are a few points that should be considered first, such as the purpose for which the device will be used and the degree of silence desired. It should be remembered that complete silence has rarely been achieved. For maximum effectiveness, a caliber should be chosen that is below super sonic velocity and that does not produce so great an amount of escaping gas as to make the silencer too large and bulky, thus impractical.

Whenever possible, avoid revolvers as they usually can not be effectively silenced due to the escape of gas between the barrel and chambers.

# CONSTRUCTION SECTION

The following designs were mainly selected for their ease of construction, material availability, low cost, and most important of all, effectiveness.

The construction of these silencers were designed to use a minimum of materials, labor and tools. Materials we researched to make the silencer as effective as possible, yet easily accessible at any supermarket or hardware store. These designs, though they may appear crude, were found to be the most basic and effective. All conform to the fundamentals of effective firearm silencer principles.



One important point to bear in mind is that these silencers, although very effective, are "disposable" silencers, and will lose their effectiveness after a few shots.

One of the main features of these silencers, besides their low cost, is their legality. Federal, State and Local laws prohibit the possession of any firearm silencing device without a special license. You must first apply for the license, then if approved, pay a special tax of \$200.00 and then proceed to assemble your silencer. Thus the design of these silencers are such that owning all parts by themselves (DISASSEMBLED!) is perfectly legal. ALWAYS remember that any ASSEMBLED device, whether it be improvised or professionally made, to reduce the sound level of a firearm is illegal without this special license. In some states you are not given a choice, as all sound suppressors are prohibited to private citizens. Check with your local authorities BEFORE construction.

Although most of the silencers presented in this book can be installed to practically any weapon, to achieve maximum effectiveness, the author recommends the use of a .22 long rifle caliber weapon.

Experimentation is a key element in developing an effective silencer. Different diameters, lengths, and shapes may have a great effect on the effectiveness of any given design.

(NOTE: Dimensions in this book are given as references only. Depending on the caliber of your weapon, you may require a different length or diameter or both.)

### SCREEN SILENCER

Here is one that is very effective for .22 caliber weapons.

2 pieces of screen, 6 inch and 8 inch wide by several feet long, some tape and an ordinary lead pencil are all the materials required.

Start with the strip of screen wire six inches wide and several feet long and begin wrapping one end around the pencil. Continue to wrap the screen wire around the pencil until the roll is the same diameter as the outside diameter of the barrel on your weapon.

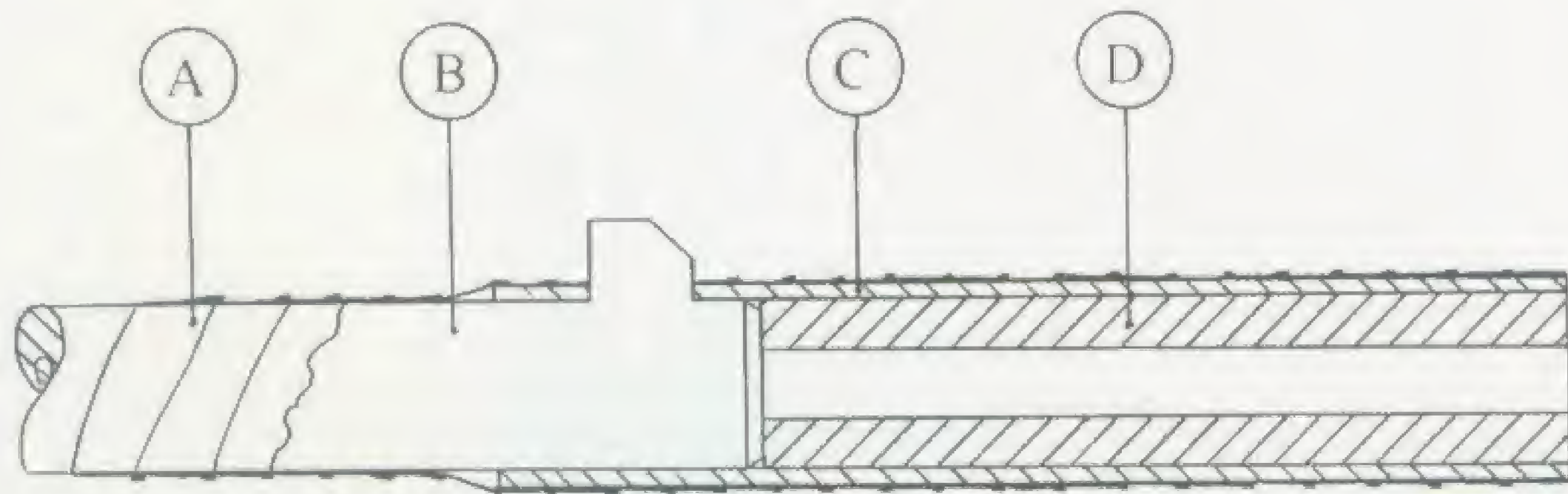


Use two pieces of tape to prevent the screen wire roll from unwrapping.

Now switch to the strip of screen wire about 8 inch wide. (NOTE: It is suggested that the front end of the barrel be taped to prevent it from being scratched by the screen.) Keeping one edge flush with the front of your original roll, let the other edge extend back two inches around the barrel. Each time the screen wire is wrapped over the front sight, cut a small notch in the wire, so that the sight extends through it, and press that layer down tightly against the layer beneath it. Continue wrapping four or five turns until the inner cylinder of screen wire is firmly held to the gun barrel. Cut off any excess length of the screen wire strip.

Finally, wrap the outer part of the roll with two layers of ordinary electrical tape or cloth adhesive tape, letting the tape extend back an additional two inches on the bare gun barrel to hold the "silencer" in place. Remove the pencil before firing.





A) TAPE B) BARREL C) OUTER WINDOW SCREEN ROLL D) INNER SCREEN ROLL



Materials Required: A) Cloth adhesive tape B) Electrical tape C) Pencil or cleaning rod D) Window screen.



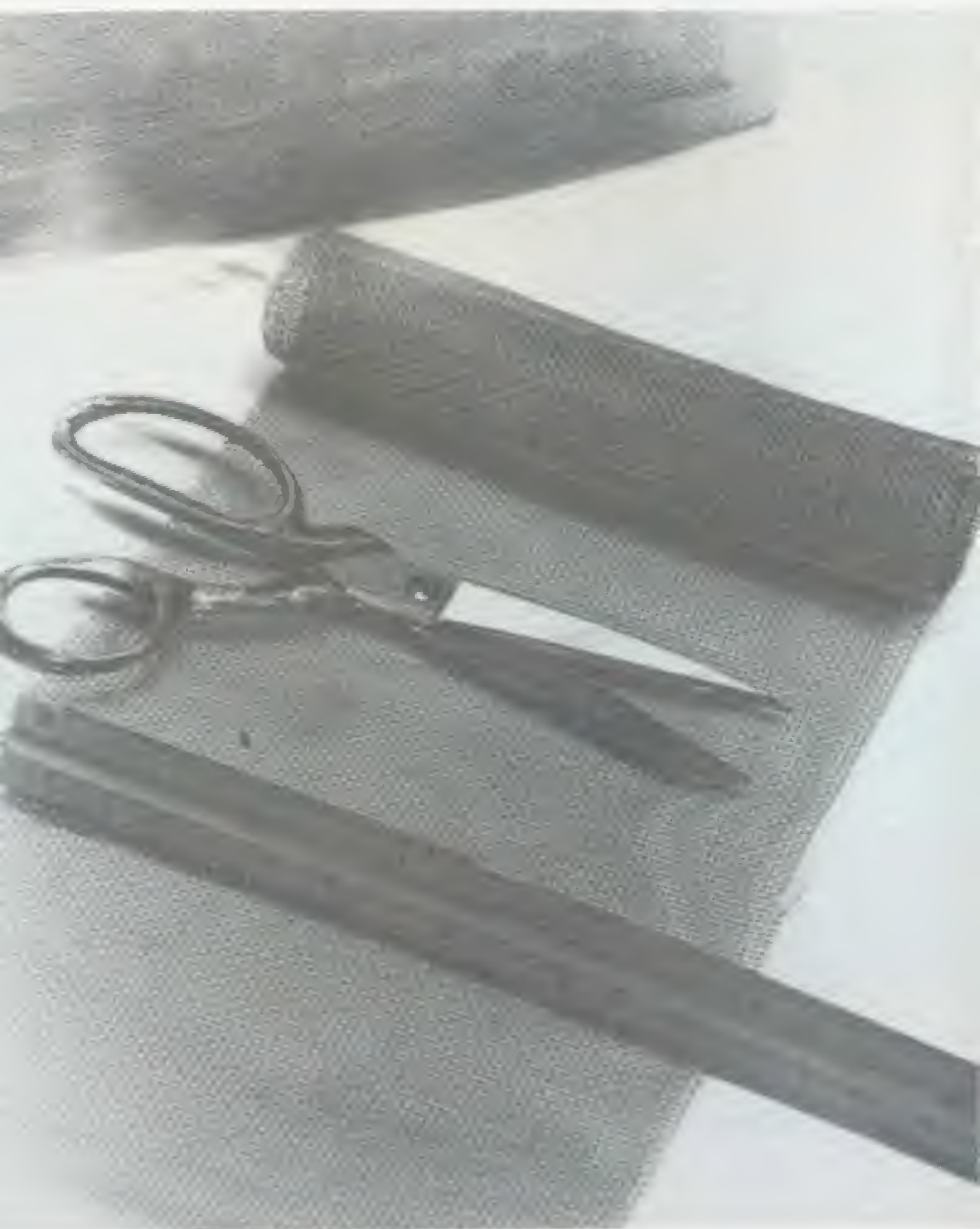
For easier construction, front sight can be removed. If removing sight is impractical, refer to text for instructions.



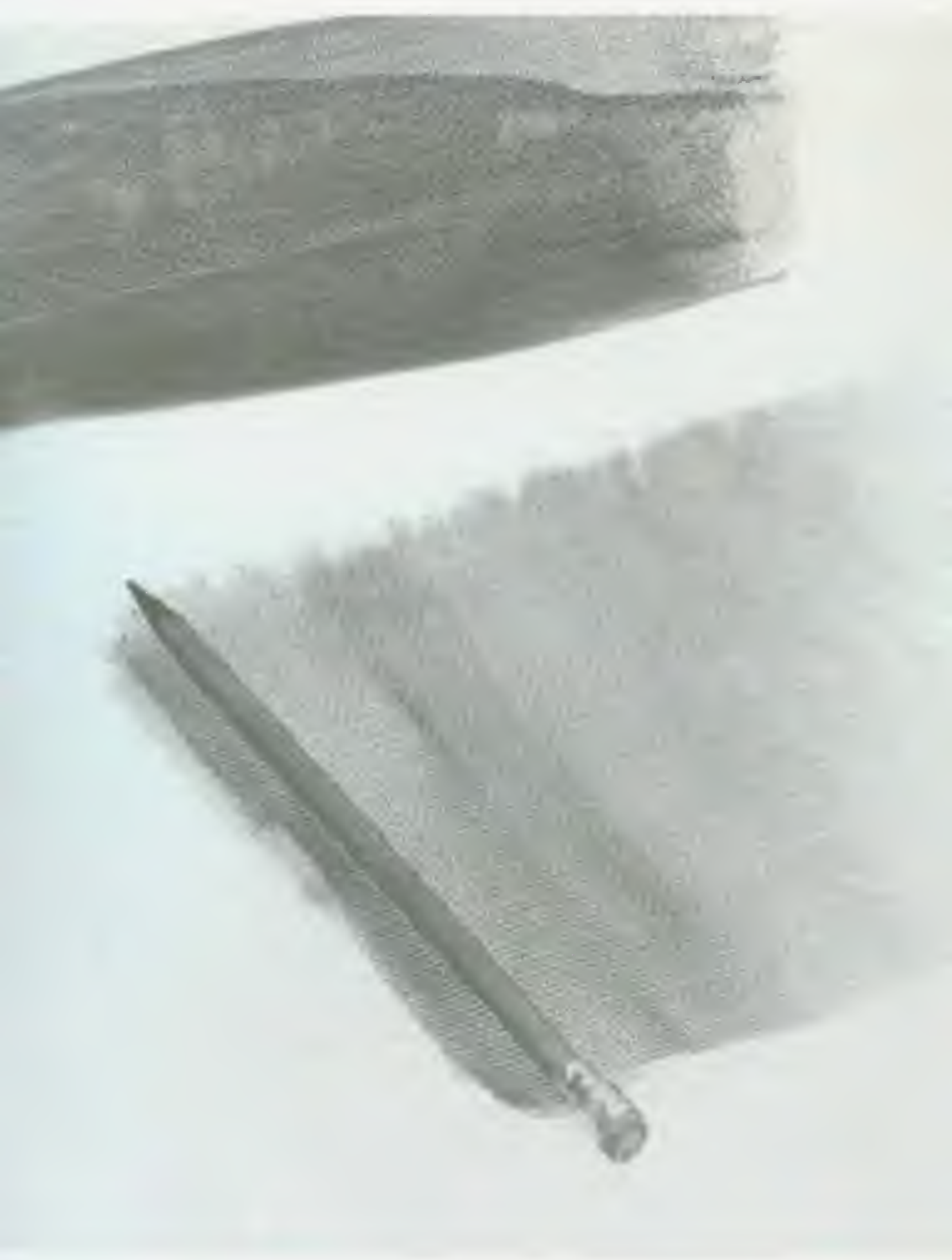


Tape barrel to prevent it from being scratched by screen.

## Disposable Silencers



Measure screen. Two widths will be needed. Size will depend on caliber of weapon used. For .22 caliber long rifle, a 6" and 8" will work fine.



Start by rolling screen around pencil.



## Disposable Silencers



Finish inner roll of screen. Hold together with tape.



Inner screen roll in place with outer screen ready to be wrapped.



Wrap outer screen four or five turns around inner roll. Keep front edge flush with the front of original roll.





Once outer screen has been completely wrapped, hold in place by using strips of tape.

## Disposable Silencers



Wrap outer part of the screen with two layers of tape.



Completed unit. If desired, for maximum effectiveness, front end of unit could also be taped.



# SOFT DRINK BOTTLE SILENCER

The following design is one of the simplest to manufacture, least expensive and yet, one of the most effective of all disposable silencers.

All that is required for construction is an empty 1 or 2 liter plastic soft drink bottle, a 1 or 1½ inch hose clamp and some tape.

The bottle chosen for this purpose must have a reinforcing ring on the bottom portion, this is necessary to prevent the bottle from splitting upon discharge. There are several brands of soft drink that

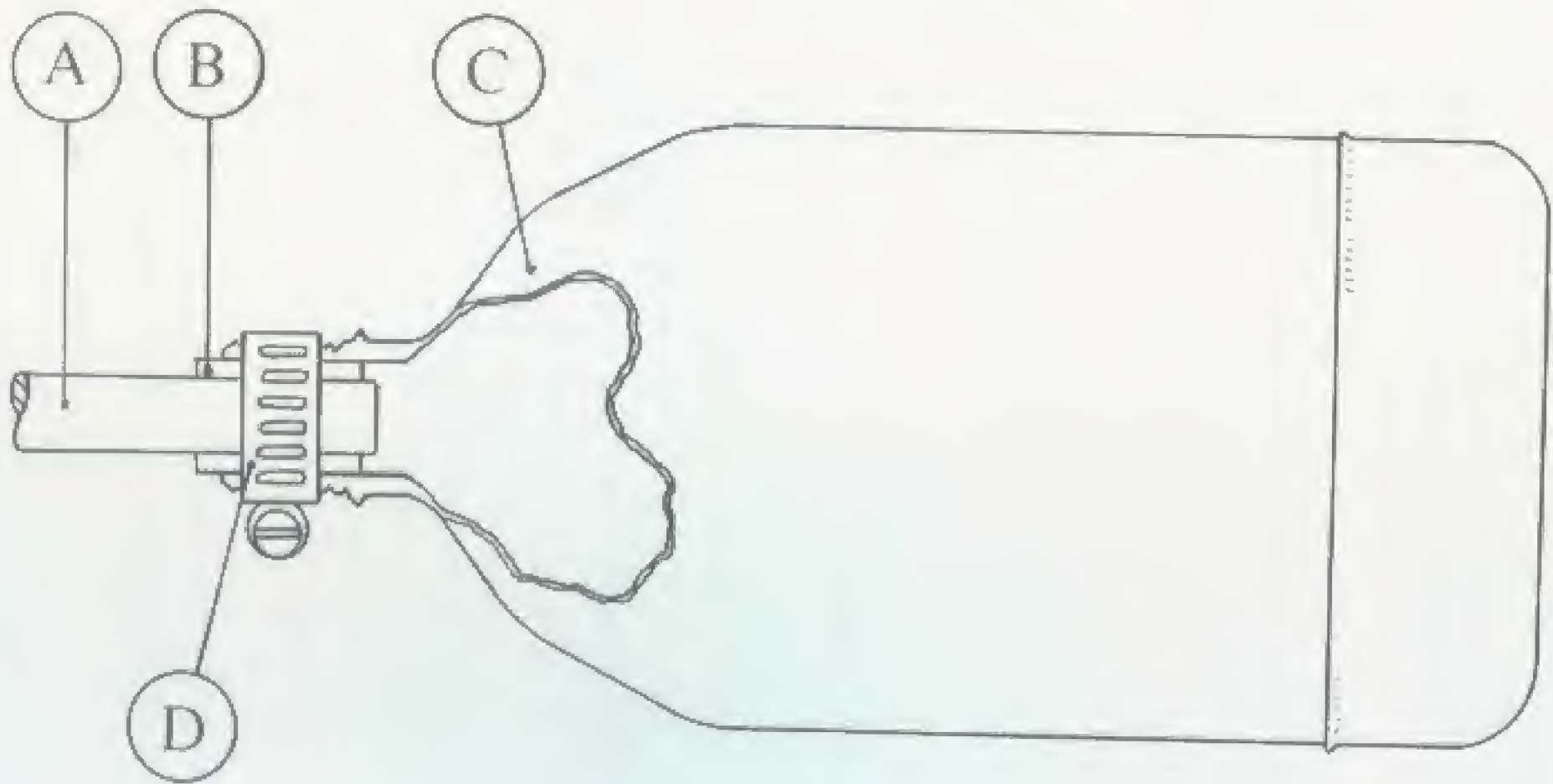
have this reinforcing ring, so get one that you will enjoy drinking.

This unit is only effective for a few shots, as the noise level will increase with each successive shot, due to the enlarging exit hole at the bottom of the bottle.

Begin construction by measuring the inside diameter of the bottle neck with the diameter of the barrel. If the diameter of the barrel is smaller, bring it up to the required size by using electrical tape. (NOTE: With some weapons you will need to make a slot on the bottle neck for the front sight. Make it a tight fit!).

Next, slip the 1 or 1½ inch hose clamp over the bottle neck and install bottle to weapon. Once the bottle is in place, position the hose clamp over the tape and tighten clamp. (Make sure there is a good seal between the tape and inside of bottle neck.) Check the front sight slot for any openings, and use tape, if necessary, to seal any leaks.

If desired, use some paint to match the "silencer" to your weapon's finish.



A) BARREL B) TAPE BUSHING C) SOFT DRINK BOTTLE D) HOSE CLAMP.





Materials needed for suppressor: A) One, or two liter soft drink bottle B) Electrical tape C) One inch hose clamp.



Constructing barrel bushing from tape.



Close-up of barrel bushing.





Install hose clamp to bottle neck.



Install bottle to weapon by tightening hose clamp.



Close-up of suppressor mounted on barrel.





Complete assembly.

## Disposable Silencers



Unit can be made more efficient by filling bottle with rags or similar materials.



Suppressor attached to Ruger Mk 1 bull barrel .22 pistol.



## PIPE AND SOFT DRINK BOTTLE CAPS

A simple silencer can be made using soft drink bottle caps.

Materials required are about 20 bottle caps, a pipe in which the bottle caps fit snugly, an end cap for the pipe, a 1 inch or 1½ inch hose clamp, and some electrical tape.

Start to make your silencer by making a tape bushing behind the front sight. It should be just slightly less in diameter than the inside diameter of the pipe.

Next, make a slot in the pipe for the front sight. Use

a jig saw or hack saw to cut the slot and files to smooth any rough edges. The slot must be long enough so that there is from  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch of pipe extending past the back of the front sight.

Install the pipe to the gun with the hose clamp in the back of the front sight. (Another acceptable method for pipe installation is to slot one end of the pipe and file a notch to one side. This can then be slipped over the front end of the barrel and held in place by twisting the pipe so that it catches behind the front sight).

Proceed by punching and drilling the bottle caps using a drill with a larger diameter than the caliber to be used. Drill end cap making its hole larger than that of the bottle caps.

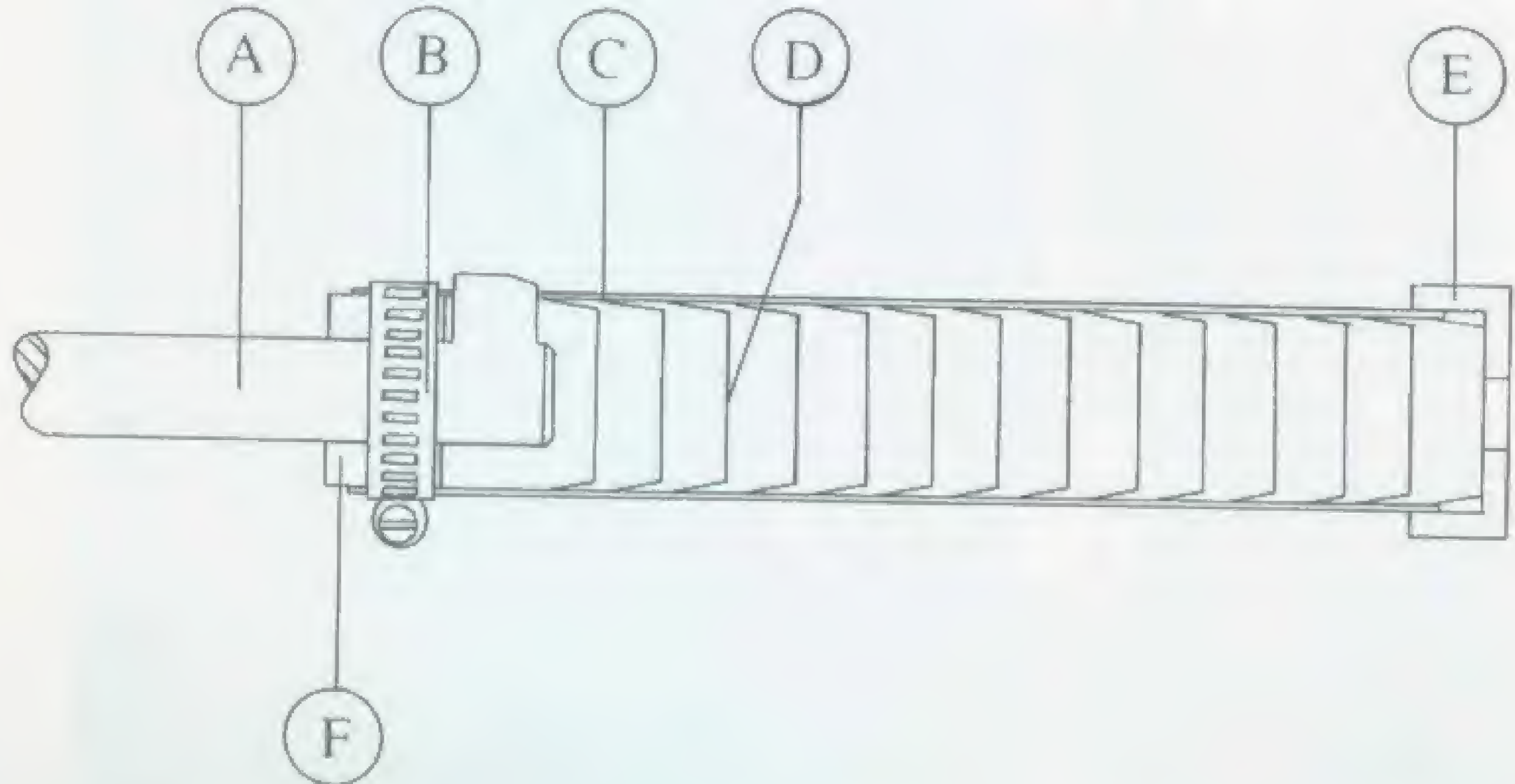
**NOTE:** When constructing this disposable silencer, it is best to leave the hole through the center plenty large to prevent the bullet from striking the silencer, if it should become tipped to one side.

Begin filling the pipe with the bottle caps, stacking them all in one direction with the drilled holes pointing towards the end cap. Make sure the last bottle cap has the drilled hole towards the end cap and is half way out of the pipe, that way the end cap will push against it when installed, holding the caps firmly inside the pipe.

Finally, place a cleaning rod or any other suitable rod through the silencer and into the barrel, this is to ensure alignment of the caps with the barrel and end cap. Install end cap. Before firing, remove the cleaning rod.

If you should notice some gas escaping through the slot, use some tape to seal any leaks.





A) BARREL B) HOSE CLAMP C) PIPE D) SOFT DRINK BOTTLE CAPS E) END CAP. F) TAPE BUSHING

## Disposable Silencers



Materials needed: A) PVC or metal pipe B) One inch hose clamp  
C) PVC end cap D) Electrical tape E) Pop bottle caps.



Slotting pipe for front sight.





Make sure all rough edges are deburred and smooth.